Title (en)

Improved dielectric coating for surfaces exposed to high temperature water

Title (de)

Verbesserte dielektrische Beschichtung für an Hochtemperaturwasser ausgesetzte Oberflächen

Title (fr)

Revêtement diélectrique amélioré pour surfaces exposées à de l'eau à température elevée

Publication

EP 1676936 A3 20070404 (EN)

Application

EP 05257954 A 20051222

Priority

US 2495204 A 20041230

Abstract (en)

[origin: EP1676936A2] Disclosed is a method for reducing electrostatic deposition of charged particles on wetted surfaces that are exposed, periodically or substantially continuously to high velocity fluid flow within a coolant flow path in a nuclear reactor. The method includes depositing a first or base dielectric layer (102) and a second or outer dielectric layer (104) on a conductive surface (100) that forms a portion of a high velocity flow path. The first dielectric layer material is selected to provide improved adhesion to the conductive surface and the second dielectric layer material is selected to provide suitable adhesion to the first dielectric layer and improved corrosion and/or mechanical resistance in the anticipated operating environment.

IPC 8 full level

C23C 16/40 (2006.01); **G21K 4/00** (2006.01); **A61B 6/00** (2006.01); **A61B 6/02** (2006.01); **C23C 16/02** (2006.01); **C23C 28/04** (2006.01); **C23C 30/00** (2006.01); **G01T 1/00** (2006.01); **G01T 1/20** (2006.01); **G02B 27/02** (2006.01); **G21C 15/28** (2006.01); **G21C 17/022** (2006.01); **G21C 19/30** (2006.01); **H04N 5/30** (2006.01)

CPC (source: EP US)

C23C 16/0272 (2013.01 - EP US); **C23C 16/405** (2013.01 - EP US); **C23C 28/042** (2013.01 - EP US); **C23C 28/044** (2013.01 - EP US); **C23C 30/00** (2013.01 - EP US); **G21C 15/28** (2013.01 - EP US); **G21C 19/30** (2013.01 - EP US); Y02E 30/30 (2013.01 - EP US)

Citation (search report)

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CN112562944A; EP2377966A4; US9850581B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

EP 1676936 A2 20060705; **EP 1676936 A3 20070404**; **EP 1676936 B1 20100407**; DE 602005020411 D1 20100520; ES 2341783 T3 20100628; JP 2006194873 A 20060727; JP 4943701 B2 20120530; MX PA05013942 A 20060710; TW 200634849 A 20061001; TW I372398 B 20120911; US 2005265512 A1 20051201; US 2014029712 A1 20140130; US 8023609 B2 20110920; US 8675806 B2 20140318

DOCDB simple family (application)

EP 05257954 A 20051222; DE 602005020411 T 20051222; ES 05257954 T 20051222; JP 2005371381 A 20051226; MX PA05013942 A 20051219; TW 94145566 A 20051221; US 201113234578 A 20110916; US 2495204 A 20041230